BBMP

BRUHAT BANGALORE MAHANAGAR PALIKE

BAR CHART

FIRST & PART BILL

IMPROVEMENTS TO ROADS, DRAINS AND OTHER DEVELOPMENTAL WORKS

PACKAGE - 08

Name of Work: Restoration and Improvements of roads at MS Palya, Aishwarya Bakery road, Giridhamanagara and surrounding areas in Ward no- 03 of Yelahanka New town Sub division.
(PACKAGE NO-08).

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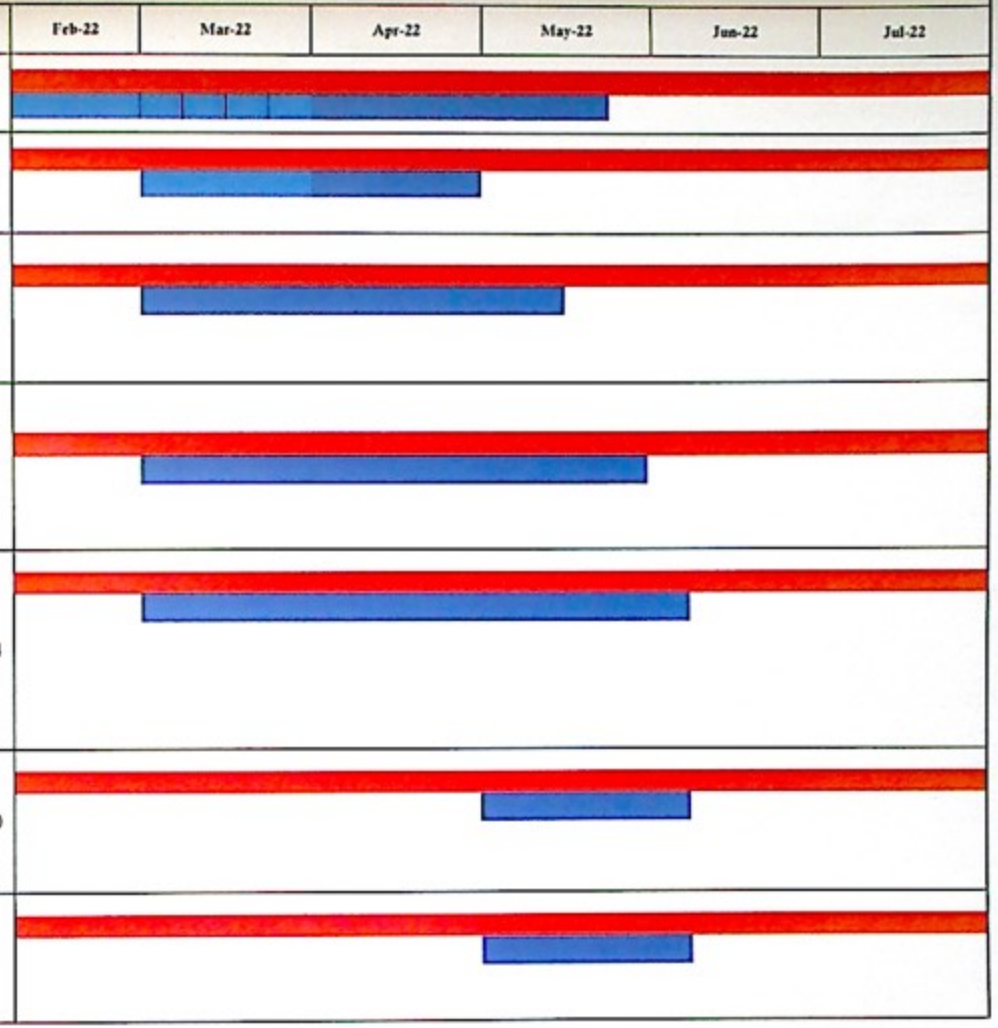
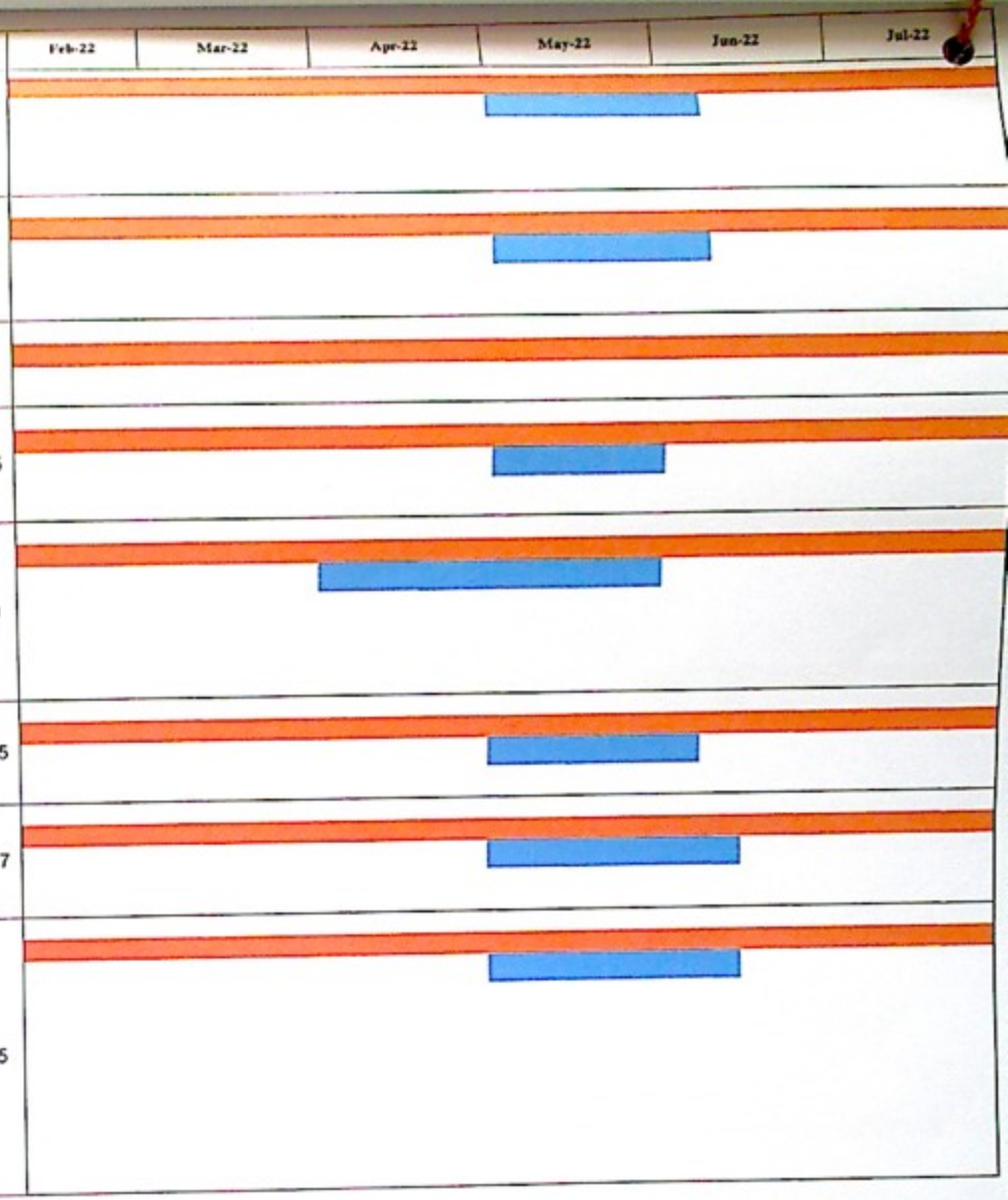
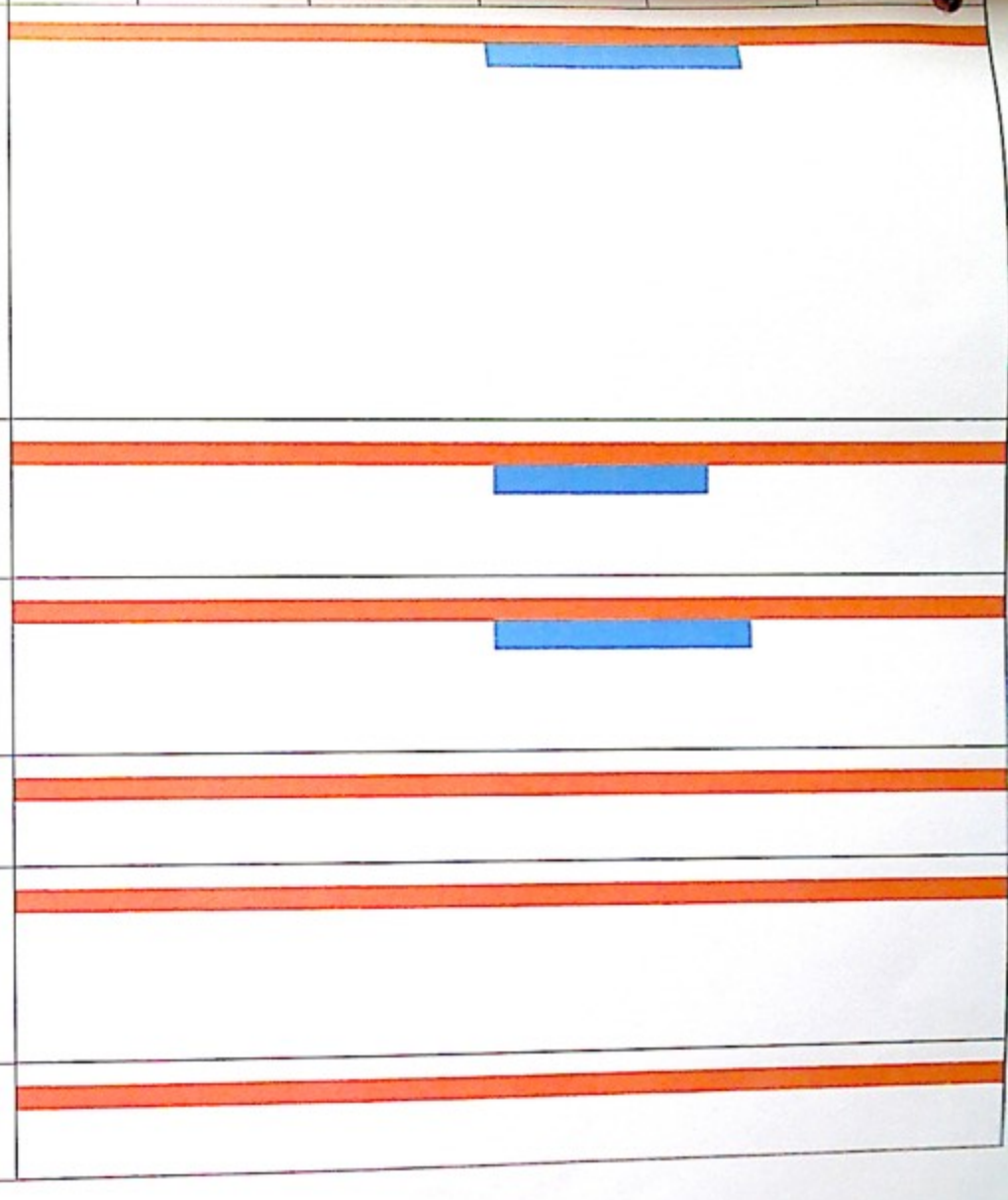
Sl No	Description of Work	Unit	BOQ Qty	Executed Qty
1	Removing B.S. slab of Drain and stacking.	Sqm	5248.8	5248.80
2	Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications.	cum	6542.10	4861.53
3	Providing and laying in position plain cement concrete of Mix 1:4:8 with OPC @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications	cum	916.52	715.54
4	Providing TMT Bars Fe 500 steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200	MT	110.87	99.08
5	Providing and laying plain/reinforced cement concrete for side drains walls & bottom thickness 15cm using M20 nominal mix concrete with OPC at 300 kgs with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc complete excluding cost of material as per MORTH specificaton No. 1500,1700,2200 including cost of materials, labour, HOM complete as per specifications	cum	1825.45	1461.04
6	Supplying and fixing precast reinforced concrete slab 10 cm thick of mix M20 using 20mm and downsize graded granite metal using reinforcement 10mm dia steel at 150mm C/c both ways cost, transportation, hire charges of machinery, machine cutting the vertical face to get plain even surface etc., complete with all leads and lift conveyance charges, labour charges inclusive of cost of cost of all materials(data Rate enclosed)	Sqm	5216.40	3690.00
7	Providing and laying precast drain cover slabs of 250mm thick of mix M20 using graded granite jelly 20mm downsize metal with steel reinforcement including form work, lift charges, curing and concrete finished surfaces on both sides etc complete and as per drawing and direction of Engineer-in-charge of work (data rate enclosed)	Sqm	171.60	171.60



Sl No	Description of Work	Unit	BOQ Qty	Executed Qty
8	Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal Coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost ofall materials, labour, HOM curing complete as per specifications.	cum	70.00	70.08
9	Providing and fixing pre cast solid cement concrete kerb stones made out of C C 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete.	Nos	7786.67	7786.67
10	Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications.	Sqm	1226.40	0.00
11	Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by mechanical means attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM complete as per specifications. MORTH 1 Chapter 3	Sqm	2602.00	2101.75
13	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete,-wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means: A. Lime Concrete, cement concrete grade M-10 and below. MORTH Specification No. 202	cum	203.10	203.10
14	Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications.	cum	8651.52	2433.95
15	Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3 (I No-19.64,P No-147)	Sqm	28838.40	8113.17
16	Providing and Constructing dry lean cement concrete mix CC 1:5:10 base with OPC 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @0.58cum over a prepared sub-base, coarse and fine aggregate conforming to IS: 383-2016,aggregate cement ratio not to exceed 15:1, Aggregate gradation after blending to be as per Table 600-1 ,optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. Clause 601 of MORTH V Revision and IS 456 Table-5 do- with OPC at 150 kg/cum and coarse aggregate 0.86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with fixed form paver	cum	671.55	671.55



Sl No	Description of Work	Unit	BOQ Qty	Executed Qty
17	Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30 over a prepared base with OPC at 360 kg/cum and coarse aggregate 0.69cum, fine aggregate 0.46cum. OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum.Course and fine aggregate conforming to IS 383-2016, with Superplasticizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine, and curing including cost of all materials, labour,hire charges of machineries,all lead & lift charges etc , complete as per specifications.	cum	671.55	671.55
18	Construction of Granular Sub-Base Grading V as sub base and drainage layer by providing coarse stone aggregates of granite / trap / basalt material, mixing by mix in place method with rotavator at OMC, spreading in uniform layers with motor grader on prepared surface and and compacting with vibratory roller to achieve 98% proctor density, complete as per specifications.and as per directions of the Engineer-in-charge of the work	cum	3654.21	531.39
19	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406	cum	4872.28	708.52
20	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.Clause 502 of MORTH V revision	Sqm	24361.40	0.00
21	Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading; premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and ialignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision do - using 40/60 TPH capacity H.M.P with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen	cum	1218.07	0.00
22	Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications.	Sqm	24361.40	0.00



Sl No	Description of Work	Unit	BOQ Qty	Executed Qty	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
23	Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 40 mm) with 5.4% VG-30 Bitumen	cum	974.46	0.00						
24	Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803	Sqm	1103.40	0.00						
25	Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 – DO III Dt 11.06. 1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer.	Nos	151.67	0.00						
26	Direction and Place Identification Signs with size morethan 0.9 Size Board: Providing and erecting direction and place identification retro -reflectorised sign as per IRC:67 made of high intensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing.	Sqm	21.06	0.00						

Planned%

Progress%

SRI SAI CONSTRUCTIONS SSC Bangalore

Contractor Representative

Assistant Engineer

M/s. NANDA CONSULTANTS

Consultant Representative

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Assistant Executive Engineer

Gooty Consultancy Services